MARYLAND'S
LAND CONSERVATION PROGRAMS

PROTECTING THE CHESAPEAKE BAY WATERSHED

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Introduction

Maryland's programs for conserving and preserving open space, agricultural, cultural, and forestry and natural resource lands are the most successful and comprehensive programs in the nation. As a result, Maryland is well on its way to meeting the Chesapeake Bay Agreement's goal of preserving 20% of the State's Bay watershed. While no single program provides this protection, several state agencies, working through a web of statutes, regulations, and policies, have successfully implemented the most effective conservation efforts in the United States.

While Maryland continues to lead in the area of land conservation, Governor Robert L. Ehrlich, Jr. has identified new administrative policies to enhance these very successful programs. Accordingly, Maryland will focus all land conservation programs on the Bay, outdoor recreational facilities, and land base for agricultural and forestry industries, which will enable the State to maximize its land conservation investment. This focus will maximize conservation efforts and support a significant economic base throughout the state. Recreation lands, open space, rural and historic landscapes, and the agricultural and forest lands conserved by these programs are integral to the State's tourism and agricultural and natural resource-based industries that in turn are important factors in Maryland's economic well-being. Finally, new efforts to coordinate this focus among the agencies will provide policy makers and the State's local partners greater financial stability.

The following land preservation goals were established by the 2000 Chesapeake Bay Agreement and by the General Assembly:

Chesapeake Bay Agreement (CBA):

Permanently preserve 20% of the Bay watershed by 2010 =	1,241,605 acres
• Applied to the total state land area (93.8% of the State is in the Bay watershed)	6,208,025 acres
• Total protected land July 2003 (19.13%)	1,187,849 acres
• Additional Protection needed to meet CBA goal (0.96%)	53,756 acres
• Additional protection needed per year to meet CBA goal	7,680 acres

Senate Joint Resolution 10, 2002, Prime Agricultural Land: Protect three times more farmland than was protected in April 2002 by MALPF, Rural Legacy, GreenPrint and Local Purchase or Transfer of Development Rights by 2022 = 1,030,000 acres

• Acres protected by MALPF, RLP, GP & Counties as of FY 2003	393,552 acres
• Remaining Goal by 2022	636,448 acres
• Additional prime agricultural acres needed per year by 2022	33,497 acres

Governor Ehrlich has directed state agencies to meet existing state land preservation goals of the 2000 Chesapeake Bay Agreement and the prime agricultural land preservation goals of SJ10. This will be achieved through new policies to focus all state preservation investment on resource lands. The essence of this new policy is to ensure that all conservation funding be utilized to maximize a positive impact on the Bay's watershed and water quality. The administration will:

- Focus state land conservation programs on the most strategic lands to protect the Chesapeake Bay and its tributaries as well as the most significant natural and agricultural resources;
- Apply the best scientific information and technology to identify resource lands that are most important, the potential threats to these lands, and areas in which preservation goals can be maximized; and
- Establish a process for collaboration and coordination among state and local land conservation programs to identify geographic and natural resource areas.

A COORDINATED AND FOCUSED APPROACH TO LAND CONSERVATION

The following outline identifies principles to guide and focus the implementation of the State's land conservation programs on preserving the Bay.

Focus State Land Conservation Priorities and Investments

All state land conservation programs will identify the most critical areas for conservation and focus on permanently preserving Maryland's most important land resources. These areas include lands impacting the water quality and natural habitat of the Chesapeake Bay and its tributaries, the State's most important resource-based industries, lands necessary to the State's resource-based industries, and lands necessary to foster tourism, recreation, and Maryland's natural environment. State agencies also will focus stewardship and restoration programs on areas where the State has made significant investments in land conservation. Easement acquisition guidelines will be developed in consultation with local governing bodies to identify the best agricultural and forestry lands of the State. Properties identified by the Department of Natural Resources and the Department of Agriculture as high priorities will be considered favorable conservation investments.

Use Best Available Information and Technology

The State will use the best available mapping, data and geographic information systems to identify the most important parcels of land based on ecological and economic value, contribution to Chesapeake Bay restoration, and vulnerability to land use changes. The Department of Natural Resources' Green Infrastructure and Strategic Forest Lands Assessments are two tools that will be used, in conjunction with other available data, to help determine state land conservation focus areas for the DNR. The Maryland Agricultural Land Preservation Foundation will incorporate mapping and geographic information systems capabilities to implement new ranking guidelines in cooperation with local partners. The Department of Planning's Master Parcel Database identify and map land most vulnerable to development or land use changes that would have a negative impact on the State's conservation efforts.

Emphasize Cooperation and Collaboration

The State will establish a process for collaboration and coordination among state and local land conservation programs, in cooperation with local governments, landowners, and private conservation groups, to identify geographic and natural resource areas. Each program's conservation strengths and legislatively mandated activities will be directed toward accomplishing the State's overall land protection goals.

Focus State Acquisitions

- The State will use DNR's Green Infrastructure and Strategic Forest Lands Assessments to prioritize land conservation. This will prioritize watersheds according to their impact on the Bay and the ecological values of forestry lands. Protecting lands in both categories enhances efforts to protect the Bay because each category of land directly impacts the Bay's water quality (See Attachment 2). This prioritization will be applied to land and easement purchases.
- The State will establish a coordinated, proactive approach to identify, prioritize and act on key land preservation opportunities through federal, state and local land conservation programs.
- The administration will evaluate funding needs to meet agricultural land preservation goals and identify the prime agricultural and forestry lands of the State. The administration will work with the General Assembly, the Departments of Agriculture, Planning and Natural Resources, Maryland Agricultural Land Preservation Foundation (MALPF), the appointed MALPF Task Force, and agricultural and forestry groups throughout these important decisions.
- State land purchases will be prioritized and coordinated with other Bay restoration efforts.
- Emphasis will be given to acquiring private in-holdings within existing DNR land units to alleviate management problems, provide public access, and protect natural resources.
- The General Assembly passed Senate Bill 564 in 2003 commissioning MALPF to develop easement acquisition guidelines in consultation with local governing bodies. MALPF will work with the Department of Planning and the Natural Resource Conservation Service (of USDA) to develop these guidelines working with local jurisdictions.

Improve the Process for Implementing State Programs

- The Governor will establish a land conservation work group of staff from the state's land conservation programs to provide a coordinated approach to land conservation with a focus on the Chesapeake Bay and its tributaries.
- The State will use the 2005-2006 Land Preservation and Recreation Planning Process initiated by the Department of Planning to coordinate land conservation plans among state and local governments' land conservation programs.
- The State will coordinate federal land conservation programs to protect riparian buffers along the Bay and its tributaries. Further, the State will work to increase the flexibility of federal land conservation programs to ensure these programs contribute to protecting water quality and habitat in the Bay watershed.
- Consistent with legal sufficiency, the State will reduce the time delay and uncertainty in the State acquisition process by reducing the number of approvals of each transaction. This will alleviate the burden and frustration for landowners willing to protect their land.

Enhance Funding for Land Conservation Programs

- The State will identify potential revenue sources for land preservation, including:

a. Seeking a return to using 100% of real estate transfer tax revenues for funding land conservation and park improvements when the State's fiscal condition improves, as provided by Section 13-209 of the Tax-Property Article of the Maryland Code;

b. Acquiring land with installment purchases whenever possible, by allowing a certain portion of the agricultural or real estate transfer taxes to be used for the acquisition of zero coupon bonds and debt service for Installment Purchase Agreements in order to leverage limited state special funds with federal bonds and provide tax benefits to participating landowners;

c. Collaborating with other states that are signatories of the 2000 Bay Agreement to more effectively secure new sources of federal or private funding for land conservation;

d. Enhancing state and local tax incentives for land conservation, including private donations of land and conservation easements. The State will evaluate, and where feasible, incorporate the tax incentives outlined in the report on taxes prepared for the Chesapeake Bay Program; and

e. Increasing the marketing of conservation easements.

PROGRAM GOALS FOR LAND CONSERVATION – SUMMARY

Background

As individual state land conservation programs were established, starting in 1967 with the Maryland Environmental Trust, each program was given a general purpose, but was not given quantified goals and timelines. More specific "concept goals" were established by the implementing agencies after Program Open Space was established in 1969, such as "to protect open space at a rate that keeps pace with the rate that land is developed." Quantified goals were not set until 2000 when the signatories to the Chesapeake Bay Agreement (Pennsylvania, Maryland, Virginia, the District of Columbia, and the federal Environmental Protection Agency) established a goal to permanently protect from development 20% of the land within the Bay watershed by the year 2010.

These goals generally overlap with statewide goals described on page 1. For example, the recent goals for the Chesapeake Bay Agreement and for preserving prime agricultural land overlap, and these contribute to the POS general goal of preserving land at a rate that keeps pace with development. Continuing to preserve land through POS, the Maryland Agricultural Land Preservation Foundation (MALPF), the Rural Legacy Program (RLP), the Conservation Reserve Enhancement Program (CREP), Maryland Environmental Trust (MET), or federal or local land preservation programs is essential to meeting these statewide goals.

The following is an outline of the state program goals for land conservation and the status of what the State and these programs have accomplished by the end of FY 2003.

PROGRAM GOALS AND STATUS

See table page 6

Program Open Space:

- Goal – acquire land necessary to conserve strategic natural resources while providing recreational and economic opportunities – keep pace with development.
- Total land protected (1970-2003) 287,107 acres

Rural Legacy Program:

- Rural Legacy goal (2012) 200,000 acres
- Acres protected to 7/2003 40,129 acres
- Acres needed to meet goal 159,871 acres
- Years remaining in goal 9 years
- Rural Legacy acres needed per year to 2012 17,763 acres

GreenPrint Program: (this does not establish a goal, it provides a map and priorities)

- Land area included in Green Infrastructure (GI) 2,000,000 acres
- Land area protected at time of GreenPrint legislation 500,000 acres
- Land area protected by DNR GreenPrint 21,146 acres
- Land area protected by MALPF 8,625 acres
- Remaining GI land area in need of protection (not a goal) 1,470,229 acres

Conservation Reserve Enhancement Program:

- Land area to enroll in CREP rental agreements by 2003 100,000 acres
- Land area to protect with easements (25%) 25,000 acres
- Land area under CREP rental agreements FY2003 65,332 acres
- Land area protected with easements FY2003 3,875 acres
- Remaining land area to enroll in rental agreements 34,668 acres
- Remaining land area to protect with easements 21,125 acres

SUMMARY OF LAND CONSERVATION GOALS AND ACCOMPLISHMENTS

	Statewide Goals		Program Goals		
GOAL:	Chesapeake Bay Agreement 2000	Prime Agricultural Land (SJ10)	Program Open Space (POS)	Rural Legacy Program (RLP)	CREP (easements)
Acres to protect	1,241,605	1,030,000	n/a	200,000	25,000
Target date	2010	2022	n/a	2012	2003
Acres protected end of FY2003	1,187,849	393,552	250,716	40,129	3,875
% of State	19.13%	6.34%	4.04%	0.65%	0.06%
Additional acres needed for goal	53,756	636,448	n/a	159,871	21,125
Years remaining after FY2003	7	19	n/a	9	0
Annual acres needed ^	7,680	33,497	14,618	17,763	

Notes:

n/a = not applicable - annual or total goals never established

^ = POS annual goal based on annual amount of land developed in past 5 years (MDP)

* = Other programs, including MALPF and GreenPrint have not established numerical or time-specific goals

Program Open Space

The General Assembly established Program Open Space (POS) in 1969 and funded it with an initial bond authorization of $60,000,000. In 1970 the General Assembly dedicated ½ of 1% real estate transfer tax to fund Program Open Space. This funding concept was based on the principles that the rate of funding for state land acquisition and local parks should keep pace with the rate that land is developed and when someone buys his house he also contributes to the open space and recreational assets of their community. All POS transfer tax revenues were initially divided 50%-50%, with half of the funds distributed to the 23 counties and Baltimore City by an allocation formula (based on population, growth rate of the county and the amount of transfer tax collected from each local jurisdiction) and the other half distributed to POS to state land acquisition.

As the income from the transfer tax grew, especially in the late 1970s and 1980s when real estate activity and home prices increased, the General Assembly put annual "caps" on the revenue to POS. Beginning in 1980, tax revenue over this cap was diverted to the General Fund. Between FY1980 and FY2003, about $761.8 million in transfer tax revenues were diverted to the General Fund, which is about 41.3% of all transfer taxes collected since 1970. These funds were partially replaced during this period by $216.5 million in bond authorizations for POS and other land conservation programs using the transfer tax. For each of the past six years, POS has conserved land at a rate equal to or greater than the rate land was developed. Between 1998 and 2003, when an average of 14,618 acres of land per year was developed, POS protected an average of 16,816 acres.

Between FY2002 and FY2004, $216.8 million in transfer taxes have been diverted to the General Fund and replaced by $102.8 million in bonds. This resulted in a net loss of $114 million to land conservation programs over this three-year period.

While the transfer tax was diverted to the General Fund, the General Assembly also permitted several other uses of POS funds. A share of the local POS funds was used for park capital improvements. In 1977 the MALPF program began receiving a share of transfer tax revenues. In 1985 a 2% set-aside was provided for the Heritage Conservation Fund to acquire threatened or endangered species habitat. In 1990 the Departments of General Services, Planning, and Natural Resources were allowed to use 3% of the transfer tax for administration. DNR was allowed 25% of its state share of the transfer tax for capital improvement and critical maintenance projects, replacing prior general obligation bond funds. In 1997 the Heritage Area Finance Authority began receiving $1 million per year, and the Rural Legacy Program was authorized to use a share of DNR's transfer tax, in addition to authorized bond funds. As a result, the DNR's share of transfer tax revenues for land acquisition declined from 50% in FY1970 to 14.8% in FY2003. MALPF's share has increased from $2 million, or 7.14%, in FY1979 to 17.05% in FY2003.

Accomplishments

From 1970 to the end of FY2003, POS has funded the acquisition of 233,533 acres of land in fee simple and protected 17,186 acres with purchased easements, including those funded in part with federal programs described below. Local governments have acquired

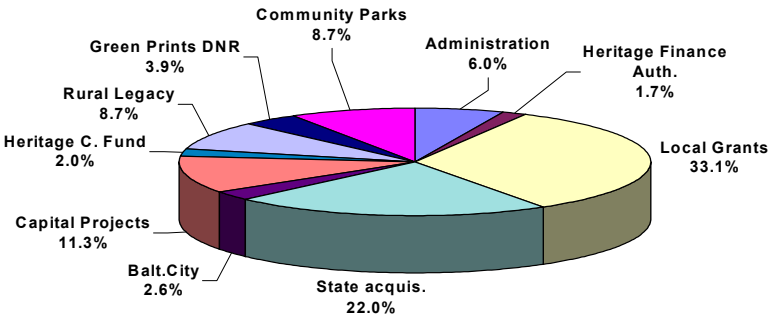
36,388 acres with POS assistance, contributing to a total of 287,107 acres of preserved land. Most citizens in Maryland now have access to a park or protected open space within 15 minutes of their home as a result of POS funding.

POS Funding

The following is a summary of DNR funding for POS and other land conservation and park programs for fiscal year 2004.

Fund Use FY2004	Transfer Tax	Bonds	Total
Administration	$3,486,240		$3,486,240
Heritage Finance Authority	$1,000,000		$1,000,000
Local Grants	$1,913,891	$17,180,000	$19,093,891
State Acquisition		$12,734,000	$12,734,000
Baltimore City	$1,500,000		$1,500,000
Capital Projects	$5,474,000	$1,040,000	$6,514,000
Heritage Conservation Fund		$1,178,000	$1,178,000
Rural Legacy		$5,000,000	$5,000,000
GreenPrint		$2,250,000	$2,250,000
Community Parks		$5,000,000	$5,000,000
Total DNR	**$13,374,131**	**$44,382,000**	**$57,756,131**

Allocation of Transfer Tax and Bond Funds FY2004



How POS Protects the Chesapeake Bay

POS funding acquired more than 83,000 acres and 115 miles of Bay area waterfront. In addition, a significant portion of the land protected by both stateside and local POS funds has been along the streams and tributaries feeding into the Chesapeake Bay. For many years, POS stateside funds were earmarked for Bay access and for specific streams and tributaries of the Bay, such as: Patapsco, Patuxent, Susquehanna, Deer Creek, Monocacy, Pocomoke, and Severn.

Most of the State's acquisitions through POS have been fee simple interests in natural resource lands, protecting Maryland's rich ecological resources and preserving vegetation that filters the runoff of water into the streams, rivers and the Bay. The 287,107

acres of land protected by POS contributes significantly to meeting the Bay Agreement's goal to preserve 20% of the Bay watershed by 2010.

Rural Legacy Program

The General Assembly established the Rural Legacy Program (RLP) in 1997 to protect areas of large, contiguous blocks of land of rural landscapes, including agricultural, natural, cultural, and forestry resources. The program is a community-up process where local governments, private land trusts, farming, forestry, historic preservation, and other interest groups work together with landowners to achieve common land preservation goals in focused Rural Legacy Areas (RLAs). These areas must meet legislatively designated criteria, which includes the agricultural significance; forestry and natural resources aspects of the land; potential to protect large blocks of contiguous land (including greenways and wildlife corridors); value of resource-based industries and degree of threat to the resources.

Local governments and land trusts (sponsors), in consultation with landowners, nominate RLAs that represent important rural working landscapes and significant natural resources. Sponsors prepare a long-term plan for protection of the area, including funding alternatives in addition to state funds, and apply to the Rural Legacy Board for area designation and grant funding. The Rural Legacy Board, composed of the Secretaries of Natural Resources, Agriculture and Planning, working with a Governor-appointed Advisory Committee representing a variety of interests in land use, recommends the designation RLAs and the distribution of the annual appropriations. The Board of Public Works approves the designation of all Rural Legacy Areas and grant funding. While some acquisitions are in fee simple, a majority of land conservation is by perpetual easement.

RLP Funding

The RLP is funded with a combination of general obligation bonds and a share of the state's allocation of Program Open Space real estate transfer tax revenues. Since the program was enacted, the Rural Legacy Board and the Maryland Board of Public Works have approved $132.9 million in grants to 25 Rural Legacy Areas. Twenty-one of Maryland's 23 counties are participating in the program.

RURAL LEGACY FUND APPROPRIATIONS

FISCAL YEAR	TRANS. TAX	BONDS	TOTAL
1998	$7,876,000	$3,000,000	$10,876,000
1999	$14,009,655	$5,000,000	$19,009,655
2000	$10,623,898	$13,800,000	$24,423,898
2001	$11,861,043	$16,000,000	$27,861,043
2002	$13,718,980	$16,000,000	$29,718,980
2003	$6,363,429	$15,000,000	$21,363,429
2004	0	$5,000,000	$5,000,000
TOTAL	$64,453,005	$73,800,000	$138,253,005

Accomplishments

Rural Legacy sponsors protected 40,129 acres of land by the end of FY 2003 with a total of $105.4 million in grant funds. Per acre costs for conservation easements have averaged about $2,600.

How RLP Protects the Chesapeake Bay

Most of the 25 Rural Legacy Areas are located directly on the Bay or the shores of a major tributary of the Bay. RLP is a targeted and focused land conservation program designed to protect large, contiguous blocks of land to conserve the State's significant natural resources and sustain resource-based industries. This conservation is achieved through perpetual conservation easements of riparian buffers, protection of wetlands, best management practices through soil and water quality plans, and conservation of agricultural, forestry and natural resources. The 40,129 acres of land protected by the RLP contribute significantly to meeting the Bay Agreement's goal to preserve 20% of the Bay watershed by 2010.

GreenPrint Program

In 2001 the General Assembly enacted a new program designed to protect lands critical to the long-term ecological health of the State. These lands, referred to as Maryland's Green Infrastructure, provide the natural foundation to support a diverse plant and animal population and facilitate natural processes like filtering water and cleaning the air. DNR identified over two million acres of Green Infrastructure lands, 529,771 acres of which are now protected. The program was expected to boost the State's land conservation capacity by about 10,000 acres per year for five years.

GreenPrint Funding

In FY 2002 the GreenPrint Program received a first year bond authorization of $35 million, 75% ($26,250,000) distributed to DNR and 25% ($8,750,000) to MALPF. This was later reduced by $5,000,000, which adjusted the total distribution to $22,500,000 to DNR and $7,500,000 to MALPF. In FY 2003 this authorization was limited to $16 million, with $12 million to DNR and $4 million to MALPF. In FY 2004 the program was limited to $3 million, with $2,250,000 for DNR and $750,000 for MALPF.

Accomplishments

At the end of only two fiscal years, DNR's GreenPrint Program protected 10 highly significant groups of properties totaling 21,146 acres of Maryland's most important natural resources. The MALPF Program also protected 8,625 acres of agricultural preservation on lands ranked very high for their Green Infrastructure values. A total of 29,771 acres was protected at an average cost of $1,542 per acre.

How GreenPrint Protects the Chesapeake Bay

With the exception of some forested lands in Garrett and Allegany Counties in Western Maryland that flow into the Ohio River, almost all of the 2 million acres of Green Infrastructure lands are in the Chesapeake Bay watershed. These lands are the most ecologically significant of all lands in the watershed and their protection will maintain Bay water quality and wildlife habitat. Of the 21,146 acres of land protected by the DNR portion of GreenPrint to date, much of it is directly on the Bay or on one of its major tributaries. Of the 23,000 acre Glatfelter group of properties located in six counties on the Eastern Shore and Southern Maryland, 17,000 acres of easements were acquired with GreenPrint funds. Much of this forested land is on tributaries and streams leading into the Bay, the Potomac River, or the Coastal Bays. These forestlands will be managed under a Forest Management Plan incorporated into the easement held by DNR.

The Maryland Environmental Trust

Founded in 1967 as an quasi-independent agency of DNR, the General Assembly established the Maryland Environmental Trust (MET) to "conserve, improve, stimulate, and perpetuate the aesthetic, natural, health and welfare, scenic, and cultural qualities of the environment, including but not limited to land, water, air, wildlife, scenic qualities, open spaces, buildings or any interests therein…" Since the 1970s MET accomplished this mission primarily through the solicitation and management of donated conservation easements, which are donated by private landowners. The federal government and Maryland have enacted a number of financial incentives to encourage landowners to permanently protect their land. The appraised value of easements donated to MET, directly or jointly associated with any of the over 50 local land trusts (non-profit conservation organizations) in Maryland, is deductible from the donor's annual income tax over a six-year period. The General Assembly also enacted a 15-year property tax credit for the unimproved portions of property subject to an easement donated to MET, and more recently enacted an income tax credit of up to $5,000 per year or a total of $80,000 for donors of conservation easements to MET. In addition, federal and state estate taxes can be reduced substantially for heirs of easement donors because a donated conservation easement tends to reduce the value of the protected land as a part of the overall estate. While typical costs for easements purchased by MALPF or RLP range from about $2,000 to $2,700 per acre, easements donated to the MET cost the State only about $158 per acre for administration and enforcement.

Accomplishments

At the end of FY 2003, MET had protected 76,230 acres of land with donated conservation easements and held a total of more than 100,000 acres of easements, including those donated and others purchased by DNR through POS, RLP, and federal transportation enhancement.

How MET Protects the Chesapeake Bay

By permanently protecting more than 100,000 acres of land, MET contributes significantly to the Chesapeake Bay Agreement's goal to protect 20% of the Bay watershed by 2010. Through its Land Trust Assistance Program, MET also has helped form over 40 local land trusts and assisted these non-profit land conservation organizations with administrative grants, training, and revolving loan funds (Land Trust Grant Fund) to acquire easements or fee interests in land throughout the State.

The Conservation Reserve Enhancement Program (CREP)

This easement program is part of a Memorandum of Agreement (MOA) between the United States Department of Agriculture and Maryland. The focus of the MOA is to protect water quality by removing marginal agricultural land from production and replacing it with best management practices including riparian buffers, stabilization of highly erodible soils, and restoration of wetlands. There is a two-tier system to accomplish these water quality improvements. First, the landowner enters into a 15-year lease contract (CREP contract) to take land out of production and to install best management practices for water quality. For some of that land, a second step involves permanently protecting the land taken out of production and the best management practices on it by selling a permanent conservation easement.

Land trusts or Soil Conservation District (SCD) offices acquire the easements from interested landowners who voluntarily agree to sell conservation easements. The Board of Public Works approves the MOA, easement program, and county acreage values paid for the easements. The completed recorded easements are held either jointly by DNR and the land trust or SCD, or solely by DNR.

Under the MOA, the USDA is committed to entering into CREP contracts on 100,000 acres of land in Maryland. The State is committed to working to preserve the CREP areas on 25,000 acres by permanent easement. Maryland's original MOA with USDA ended December 31, 2002. The State is currently operating under a one-year extension and has submitted a proposal to USDA to renew the CREP contract through 2007.

CREP Program Funding

The CREP easement program is funded from POS transfer tax funds. Since the program was enacted, the Maryland Board of Public Works has approved $7.5 million of CREP projects. Currently, thirteen of Maryland's 23 counties are participating in the CREP program.

CREP FUND APPROPRIATIONS	
FISCAL YEAR	FUNDING
2001	$2,500,000
2002	$2,500,000
2003	$2,500,000
TOTAL	**$7,500,000**

CREP Accomplishments

By the end of FY 2003, $4.6 million in POS funds were expended to protect 55 CREP easements on 3,875 acres of land. This step toward water quality improvement includes 3,396 of forested land, 276 acres of vegetation, and 203 acres of wetlands. The mid-range price per acre CREP pays statewide is $3,600. Additionally, 1,058 acres of CREP buffers were protected through the Rural Legacy Program. Together, the two programs have protected 4,933 acres toward the State's goal of preserving 25,000 acres of CREP buffers. Maryland landowners have received a total of about $37.5 million in federal rental payments for establishing vegetative buffers on their properties.

How CREP Protects the Chesapeake Bay

The lands conserved by CREP are located directly on the Bay or the shores of the Bay's tributaries. CREP protects the Chesapeake Bay by helping to reduce the occurrences of runoff, nutrients, and sediment into the Bay and promoting enhanced wildlife habitats.

The Maryland Agricultural Land Preservation Foundation (MALPF)

Established by the General Assembly in 1977 to preserve productive farmland and woodland for the continued production of food and fiber for all citizens of the State, MALPF also curbs the expansion of random urban development, protects wildlife habitat, and enhances the environmental quality of the Chesapeake Bay and its tributaries. A 12-member Board of Trustees and a staff of five administer the program. MALPF is based on a partnership with local governments, which appoint local land preservation advisory

boards of five members to assist MALPF administer the easement selection process in each county.

To qualify for MALPF, landowners must first enroll their property into an agricultural preservation district restricting its development for a minimum of five years. If the property qualifies based on size and soil characteristics, landowners apply to the local land preservation advisory board, which reviews and approves applications to be forwarded to MALPF. The application process is competitive, with each county choosing its own ranking procedure, and each application ultimately being approved or denied MALPF's Board of Trustees.

Easement values are based on an appraisal of the fair market value of the property and a statutory formula that determines its after-easement agricultural value. The difference between these two values is the easement value – the maximum that a landowner can be paid for an easement. Landowners often discount their asking price below this easement value to be more competitive in those counties that use discounting as a part of their ranking systems. Other counties give criteria such as size of the farm, proximity to other protected land, and quality of the farm operation more importance than the price offered by the applicant. The second round of offers is considered solely on discounts. New legislation will reduce the reliance on discounting to prioritize easement applications while increasing the importance of the quality of the farming property and the property to local land-use objectives.

MALPF Funding

MALPF receives funds from several sources, including 17.05% of the transfer tax, agricultural transfer tax, state general obligation bond funds, local government funds for the 60%-40% matching funds allocation, local government funds for 100% county-funded offers, GreenPrint funds, and Federal Farm and Ranch Lands Protection Program (FRPP) funds. Typically, the largest share of funds is received from the state transfer tax through POS. Under the current allocation formula in the law, MALPF received $19,501,723 of transfer taxes in FY 2002. In FY 2003 these transfer tax revenues were substantially replaced with bond funds.

In addition, funds are received from a portion of the agricultural transfer tax, which is levied on the buyers and sellers of farmland converted from specially assessed agricultural use to non-agricultural use. These landowners have enjoyed very low property tax assessments, which encourage them to continue productive agriculture or forestry, and pay 3% or 5% of the sale of the farm when it is converted for non-farm use. MALPF receives two-thirds of this tax, while one-third is retained by the local jurisdiction for land preservation purposes. If the county has a certified local land preservation program, it is allowed to keep 75% of the locally collected agricultural transfer tax, and MALPF receives the remaining 25%. In FY 2003 and FY 2004, MALPF received $1,500,000 for its capital and operating budgets from this source, which usually averages $3,000,000 per year.

Many counties also provide funds to help acquire easements, either from their share of the agricultural transfer tax or from other county funds. In this way, some counties are able to increase their share of the overall state funding on a 40% local, 60% state matching basis or fund additional offers with 100% local funds. Local matching funds received in FY2002 were $7,620,515. As discussed above, MALPF has received 25% of GreenPrint funding to acquire MALPF easements located wholly or partially in the Green

Infrastructure. MALPF received $7.5 million in FY2002, $4 million in FY2003, and $750,000 in FY2004 from GreenPrint bond funds.

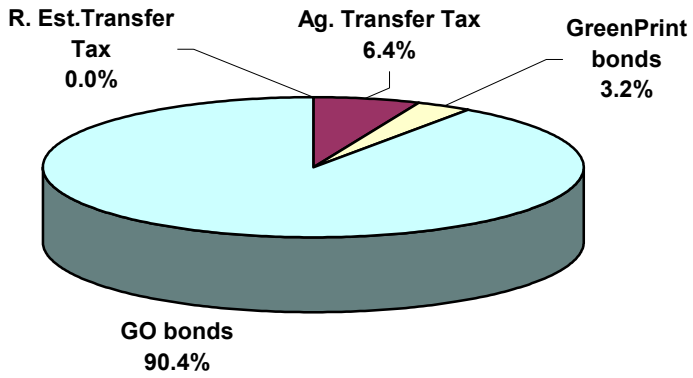
MALPF STATE REVENUE SOURCES FY2002-FY2004*

Fund Source	FY2002	FY2003	FY2004
Real Estate Transfer Tax	$19,501,723	$0	$0
Ag. Transfer Tax	$2,844,000	$1,500,000	$1,500,000
GreenPrint bonds	$7,500,000	$4,000,000	$750,000
GO bonds	$0	$0	$21,160,000
Total Revenue	$29,845,723	$5,500,000	$23,410,000

* After rescissions in BRFAs

Does not include non-state revenue (FPP, local match)

MALPF STATE FUND SOURCES
FY 2004 - $23,410,000



Accomplishments

At the end of fiscal year 2003, MALPF has protected 228,854 acres of farmland and woodland with easements and paid more than $300 million to landowners. During MALPF's 25 years of existence more than 3,062 properties totaling about 400,000 acres have enrolled in Agricultural Preservation Districts, and over half (about 1,600) of these have sold easements to the MALPF. Because many landowners offering to sell easements to the MALPF discount their asking prices substantially, MALPF has purchased easements at a savings from the calculated easement value. At the end of FY 2002, the accumulated value of this discount to the State totaled almost $102 million. MALPF currently is developing and implementing new rankings guidelines to better attract the best farming properties into the program, build on the past accomplishments of MALPF and other preservation programs, and preserve large contiguous blocks of properties that ensure long-term sustainable agricultural production. A number of counties have built on their experience in partnership with MALPF to develop complementary county agricultural land preservation programs. Local preservation programs have protected over 100,000

additional acres, contributing significantly to the protection of Maryland's agricultural resource base. (See "Contributions of Local Land Conservation Programs" below.)

How MALPF protects the Chesapeake Bay

By permanently protecting 228,854 acres of farm and forest land, 98% of which is located in the Chesapeake Bay watershed, MALPF is the second largest contributor, after POS, to achieving the Chesapeake Bay Agreement's goal of protecting 20% of the Bay watershed by 2010. Each easement held by MALPF includes requirements for best management practices (BMPs) for environmentally responsible farming, including vegetative buffers along stream corridors. A forestry management plan is required when 50% or more of an easement property is woodland. The preservation of productive agriculture and forestry is the primary goal of the program, and the protection of water and soil quality is an important element of that goal.

Contributions of Local Land Conservation Programs

Maryland county governments are national leaders in land conservation. A recent *Farmland Preservation Report* survey reported that five of the 12 top performing local government agricultural land preservation programs in the nation are in Maryland-Montgomery, Carroll, Baltimore, Harford and Frederick Counties. Others in Maryland are close to making the top-twelve list. Several of these and other Maryland counties are also national leaders in preserving open space for recreation and natural resource protection, including those that have outstanding park systems, like Prince George's, Queen Anne's and Montgomery Counties. Together, Maryland Counties have protected more than 103,400 acres of agricultural and woodland through the purchase or transfer of development rights resulting in permanent easements. For example, Maryland counties have protected 60% of all land that is protected throughout the United States with Transfers of Development Rights ordinances. Maryland Counties work closely in partnership with the Maryland Environmental Trust and Departments of Natural Resources and Agriculture in coordinating and matching state funded land preservation programs with local resources and preservation programs.

Contributions of Federal Land Conservation Assistance

Maryland's land conservation programs utilize a number of federal funding programs for land conservation, which provide significant financial support to increase the State's ability to protect land. These include:

- **Land and Water Conservation Act (LWCF)**, National Park Service. Congress adopted this act in 1966 and it utilizes revenues from oil and gas leases of the outer continental shelf for land conservation and parks. While funding for state projects was interrupted for several years during the 1990s, more than $75 million in LWCF funds have been granted to Maryland. POS administers these funds, matches the federal funds with POS transfer tax revenues, and distributes 50% of the federal funds to local jurisdictions according to the POS allocation formula. In FY 2003, POS was apportioned $1,886,043 in LWCF funds. DNR also has utilized a special allocation of LWCF funds for the National Park Service's American Battlefield Protection Program to acquire conservation easements on Civil War sites at Antietam and South Mountain battlefields.

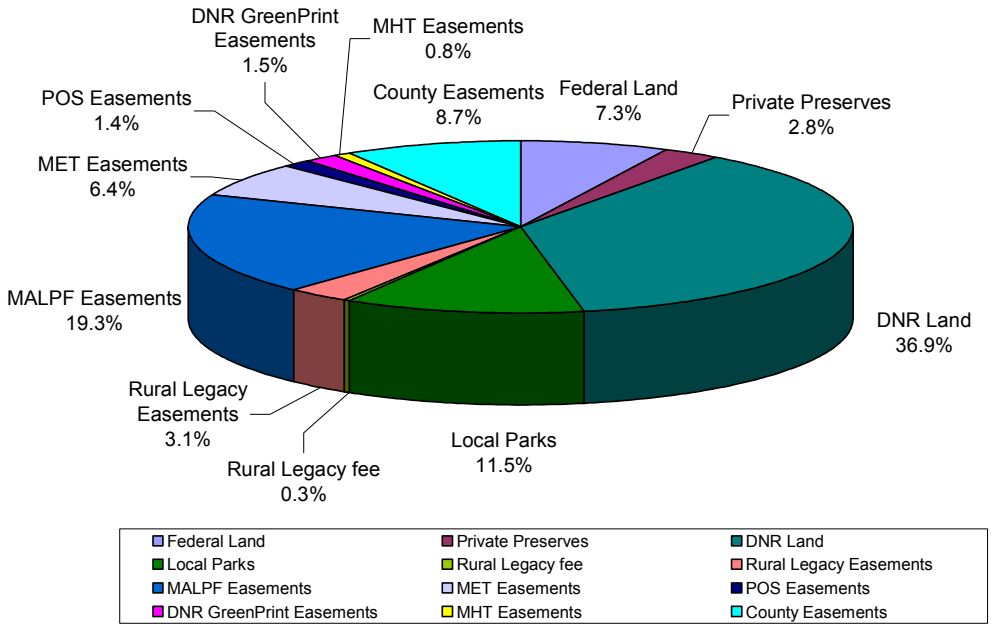
- **Forest Legacy Program** (FLP), U.S. Department of Agriculture. The FLP operates in partnership with states, supporting state efforts to protect environmentally sensitive forestlands. Designed to encourage the protection of privately owned forestlands, FLP provides matching funds to acquire conservation easements on private lands in state-designated Forest Legacy Areas. Administered by the DNR Forest Service, FLP funds are matched by RLP and POS funds, and have acquired easements on 966 acres of productive forests in several parts of the State.
- **Farm and Ranch Lands Protection Program** (FRPP), U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). The NRCS makes awards to state and local governments and private land trusts based on a competitive system utilizing the Land Evaluation Site Analysis. These awards protect prime agricultural lands with conservation easements jointly funded by MALPF, the counties, or other sources. Grant awards from the FRPP were $2,545,000 in FY2002, and $4,900,464 in FY2003, with $4,040,301 of FY2003 grants dedicated to MALPF.
- **North American Wetlands Conservation Act** (NAWCA), U.S. Department of the Interior, Fish and Wildlife Service. Several major land conservation projects have been jointly funded in Maryland by NAWCA grants, which are matched by Rural Legacy, Program Open Space and other sources. The grants are used to protect wetlands and other natural habitat for migrating waterfowl as part of international efforts to maintain the North American Flyway along Maryland's Eastern Shore, including Lands End and Chino Farms in Queen Anne's County.
- **TEA21 – Transportation Enhancement Funds**, Federal Highway Administration and Maryland Department of Transportation. In the past ten years, DNR has utilized more than $8.5 million in funds on a 50%-50% matching basis with POS and TEA21 Transportation Enhancement funds. These funds have been used to acquire fee interests or conservation easements on 41 Civil War sites at Antietam, South Mountain and Monocacy battlefields, totaling about 5,200 acres. Other significant DNR acquisition projects also have been jointly funded with Transportation Enhancement funds, such as Holly Beach in Anne Arundel County and Douglas Point in Charles County. Maryland's local jurisdictions have received more than $11.8 million in Transportation Enhancement funds for land preservation, mitigation of water pollution due to highway runoff, reduction of wildlife mortality, bike and pedestrian facilities, and preservation of abandoned rail lines and historic structures.

ATTACHMENT 1 – INFORMATION SUPPORTING

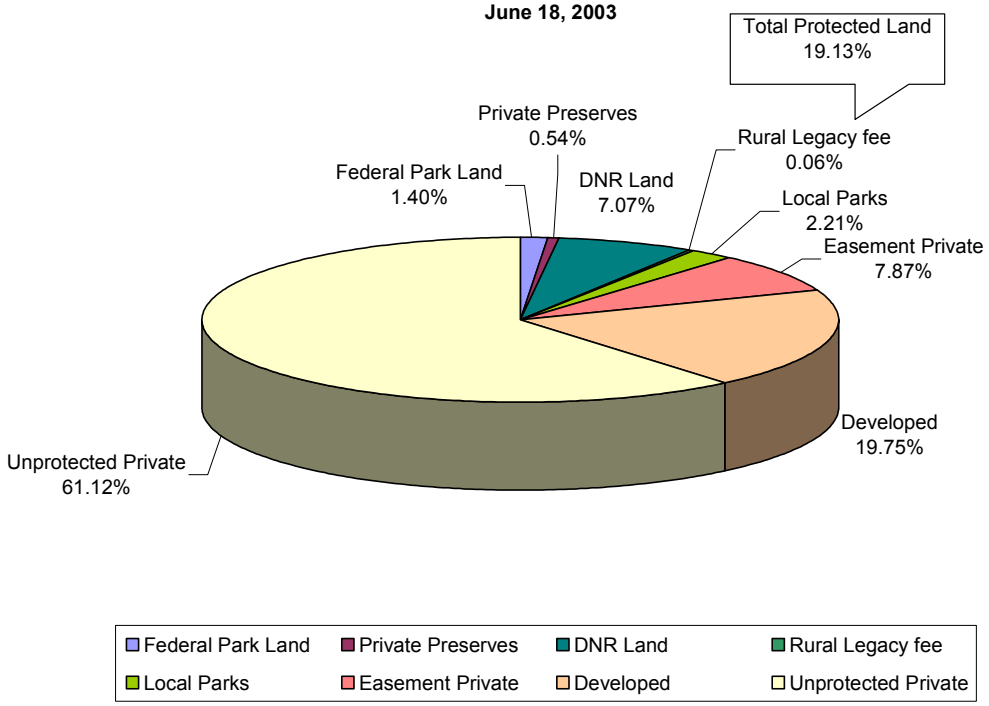
STATUS OF MARYLAND'S LAND CONSERVATION PROGRAMS

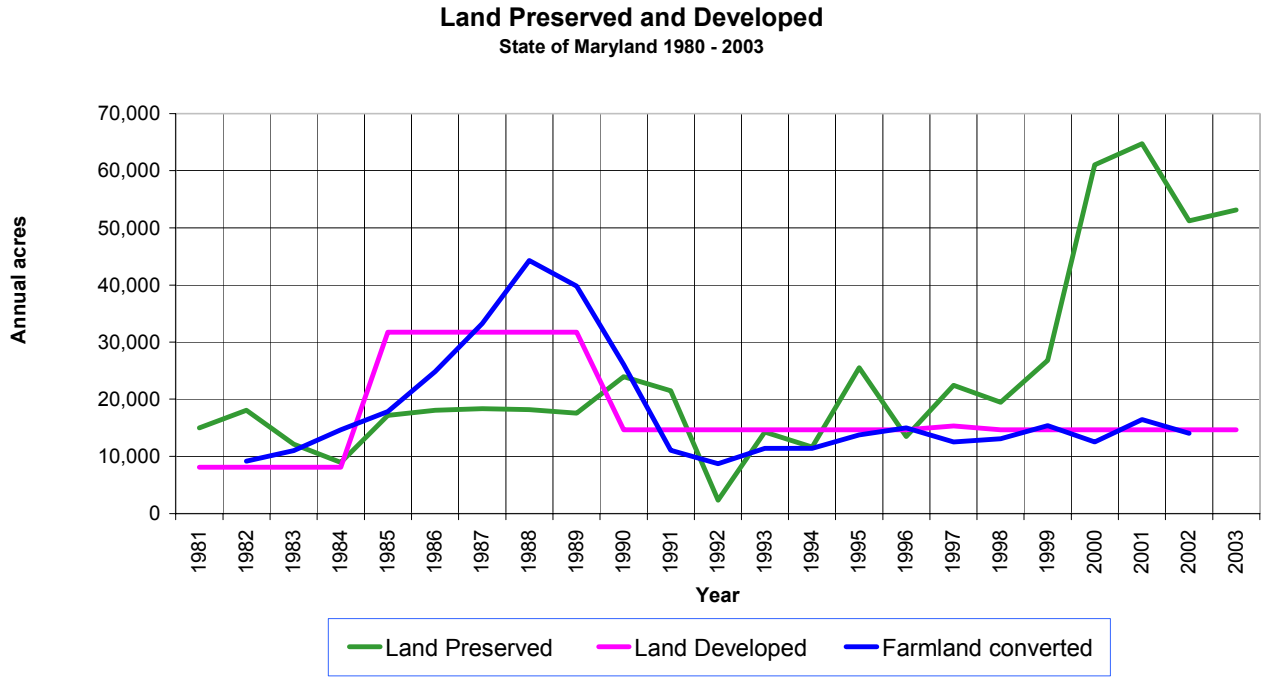
PROTECTING THE CHESAPEAKE BAY AND ITS TRIBUTARIES

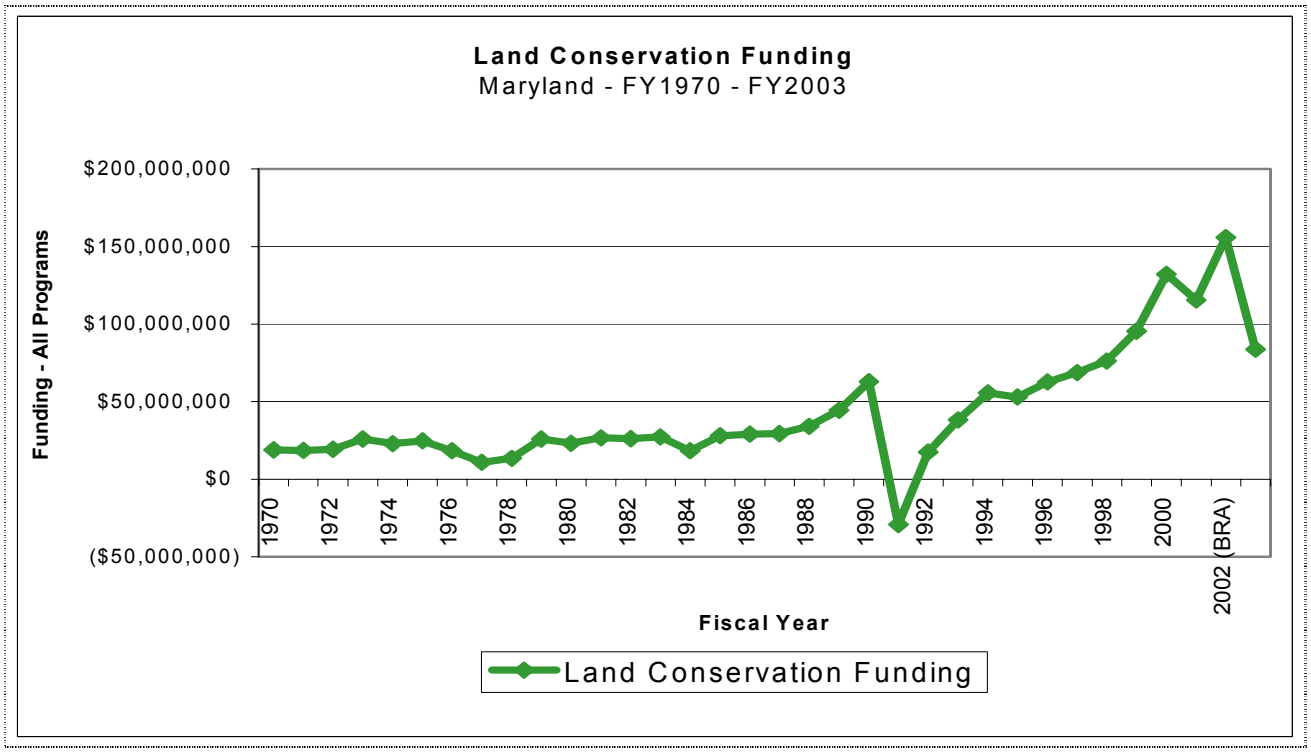
Protected Lands in Maryland - June, 2003
1,187,849 acres

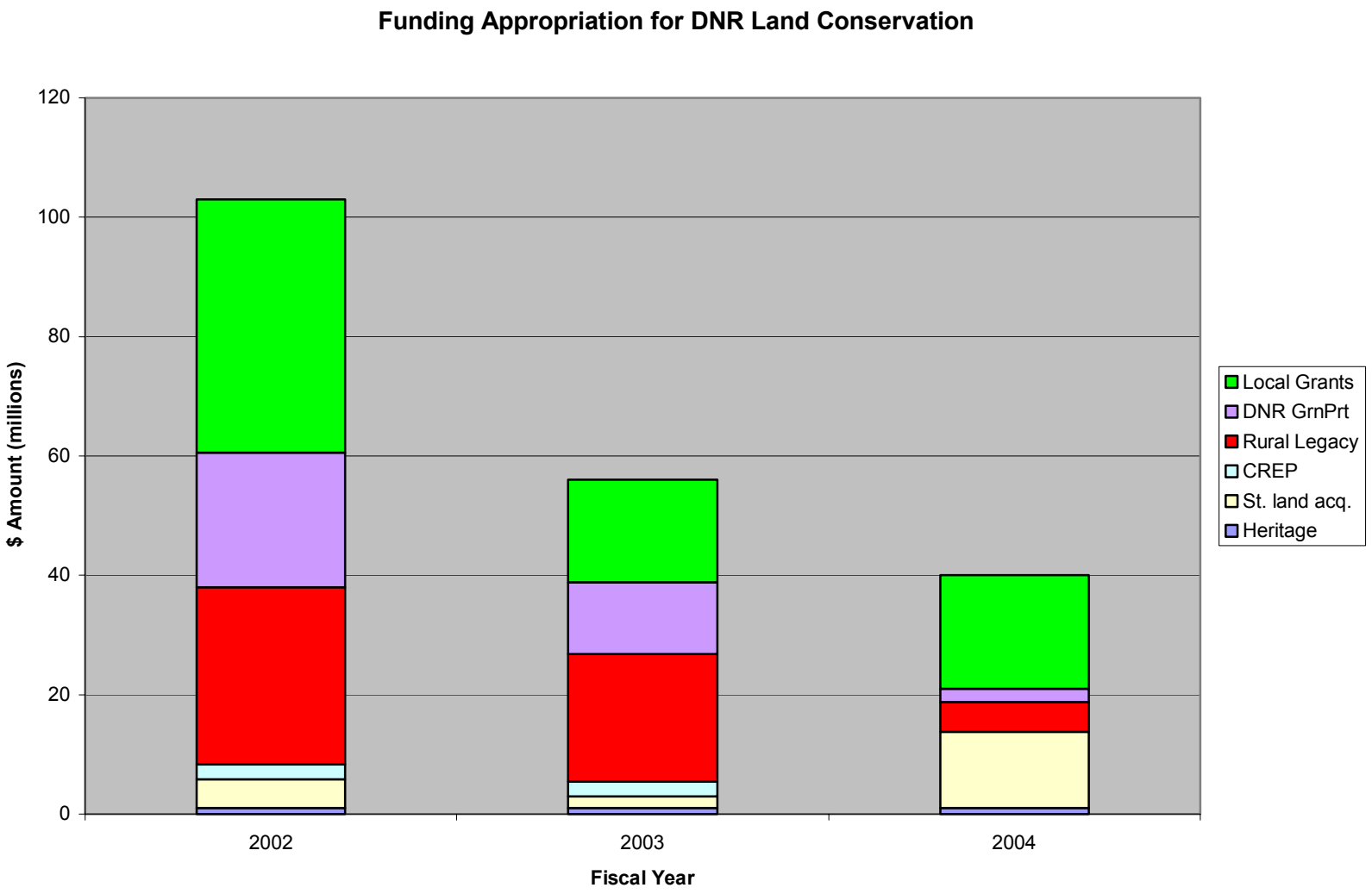


Protected, Developed & Undeveloped Land in Maryland
June 18, 2003

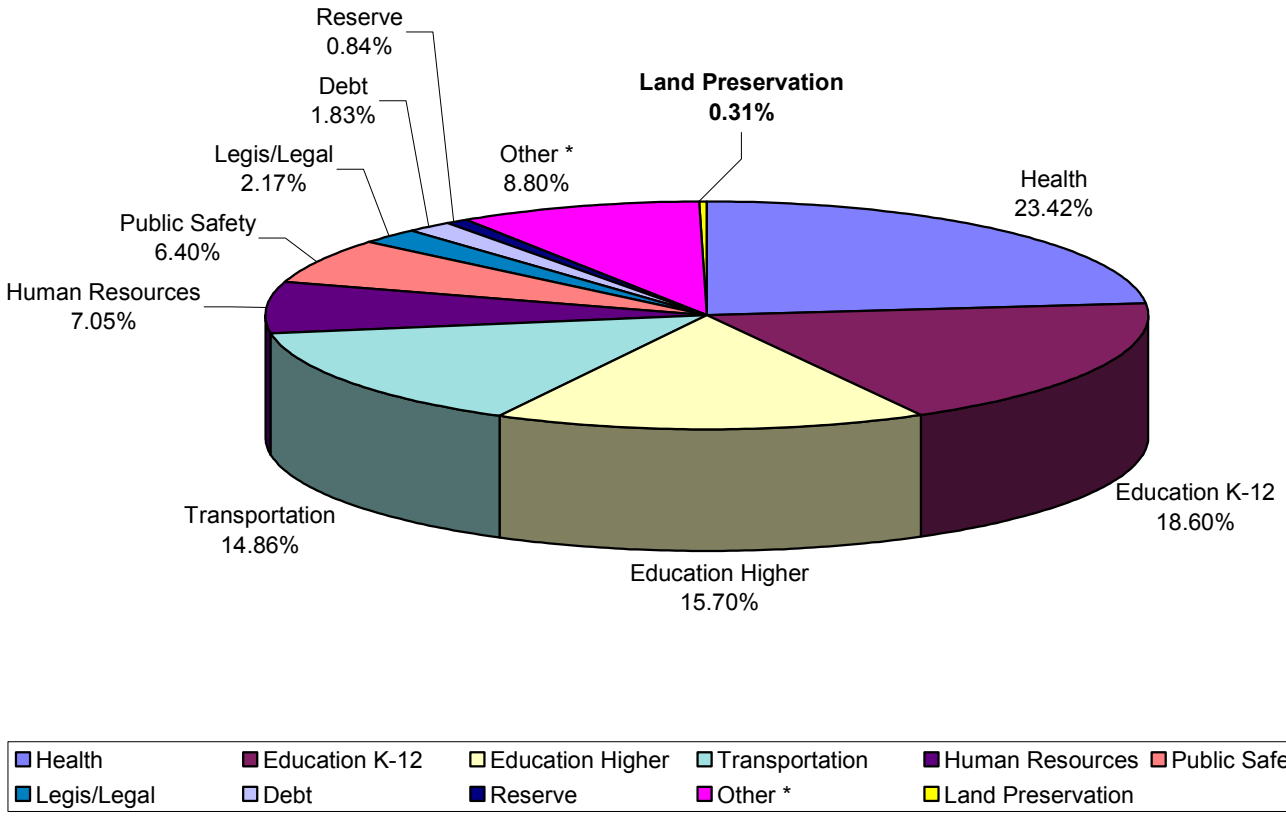



Land Preserved and Developed
State of Maryland 1980 - 2003
Annual acres
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
Year
Land Preserved
Land Developed
Farmland converted


Land Conservation Funding
Maryland - FY1970 - FY2003
Funding - All Programs
$200,000,000
$150,000,000
$100,000,000
$50,000,000
$0
($50,000,000)
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002 (BRA)
Fiscal Year
Land Conservation Funding


Funding Appropriation for DNR Land Conservation
120
100
80
60
40
20
0
$ Amount (millions)
2002
2003
2004
Fiscal Year
Local Grants
DNR GrnPrt
Rural Legacy
CREP
St. land acq.
Heritage

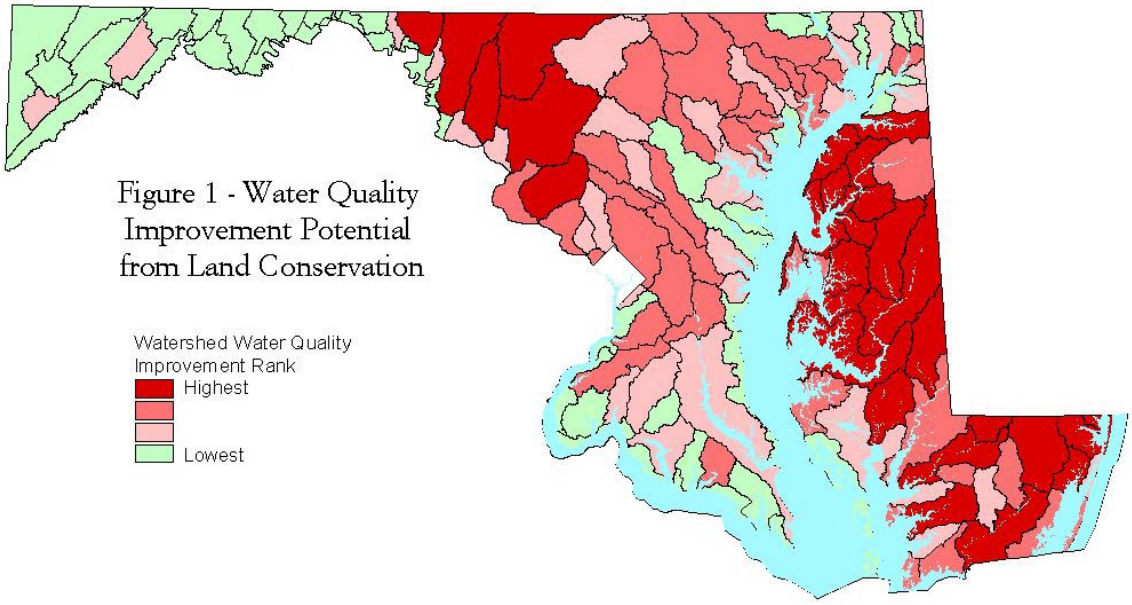
Land Preservation as % of Maryland FY2003 Budget



ATTACHMENT 2 Maryland Land Conservation Strategy Prioritization Methodology

The prioritization methodology categorizes all of Maryland's watersheds using data from a variety of sources and based on criteria put forth by the Administration. The two main categories into which watersheds are sorted and prioritized are Bay Restoration Potential and Forest Ecological Value. Two other categories can be used to further prioritize watersheds by combining them with the two main categories: Forest Economic Value (to the forest products industry) and Vulnerability to land use change. The last two categories can be combined with the first two categories to further prioritize watersheds if desired. For example, combining Forest Ecological Value and Vulnerability allows us to identify the most ecologically valuable watersheds that are also most vulnerable to degradation from future development activities; combining Forest Ecological Value and Forest Economic Value allows us to identify the watersheds that contain the most ecologically valuable forest lands *and* those forest lands that are most economically valuable to the forest industry. This helps us to focus on areas where, if the forests were lost, there would be a double loss – ecological and water quality services to the public and economic opportunities and jobs to the forest industry.

The Bay Restoration Potential category prioritizes watersheds based on their nutrient load contribution to the Bay and it's tributaries, the need and potential for restoration opportunities (e.g. wetland, riparian buffer and Green Infrastructure "gap") that help reduce non-point source pollution, and the amount of impervious surface in the watershed (which is an indicator of the magnitude of influence restoration activities will have on water quality). (Figure 1) Detailed information is available in the Appendix – Land Conservation for Water Quality Improvement Potential.



The Forest Ecological Value category prioritizes watersheds based on their ability to provide ecological services to the public, such as water quality improvement, wildlife and aquatic habitat, flood storage and reduction, nutrient cycling, etc. (Figure 2). The Ecological Value ranking is based on the Green Infrastructure Assessment methodology applied to all forests in Maryland.

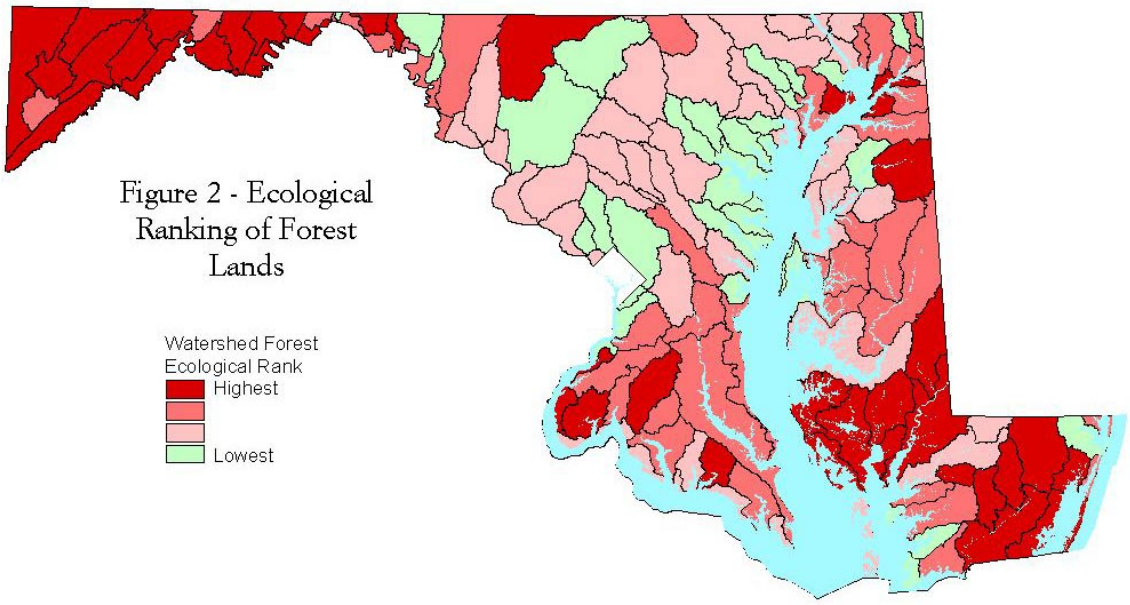


Figure 2 - Ecological Ranking of Forest Lands

The Forest Economic Value is based on the Maryland Strategic Forest Land Assessment's economic model (Figure 3). It prioritizes all forestlands in Maryland based on their relative economic value to the forest products industry.

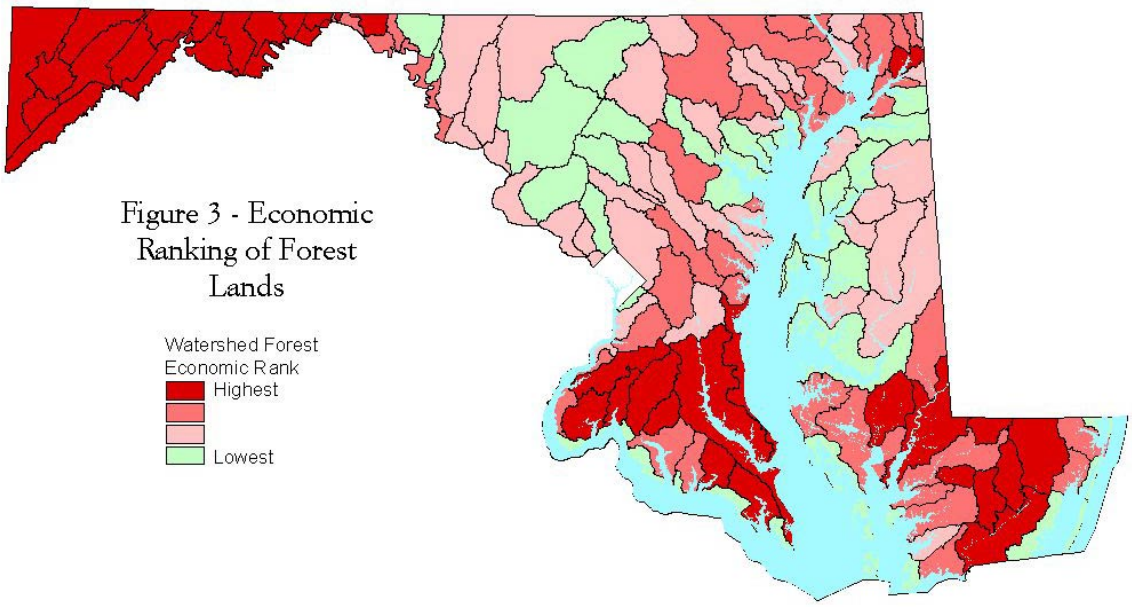


Figure 3 - Economic Ranking of Forest Lands

Vulnerability is the potential for an undeveloped area to be converted to a developed land use by 2020 (Figure 4). This information was created for the Green Infrastructure Assessment and Strategic Forest Land Assessment. It is an indicator of the potential for the loss of natural features, and their functions and values.

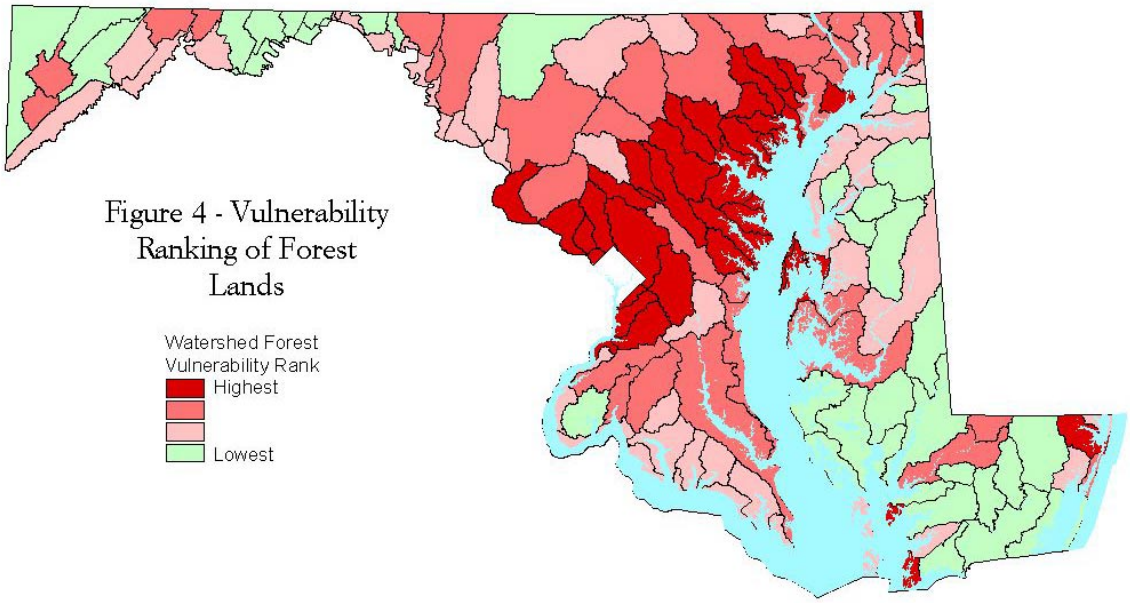


Figure 4 - Vulnerability Ranking of Forest Lands

The watersheds used in this prioritization methodology are referred to as the "Maryland 8-digit watersheds". There are 134 of these watersheds in Maryland and they average 70 square miles in size. Once a watershed or project is selected for a land conservation activity (Figure 5), DNR has the capability to prioritize areas within that watershed or project for implementation of restoration and management activities.

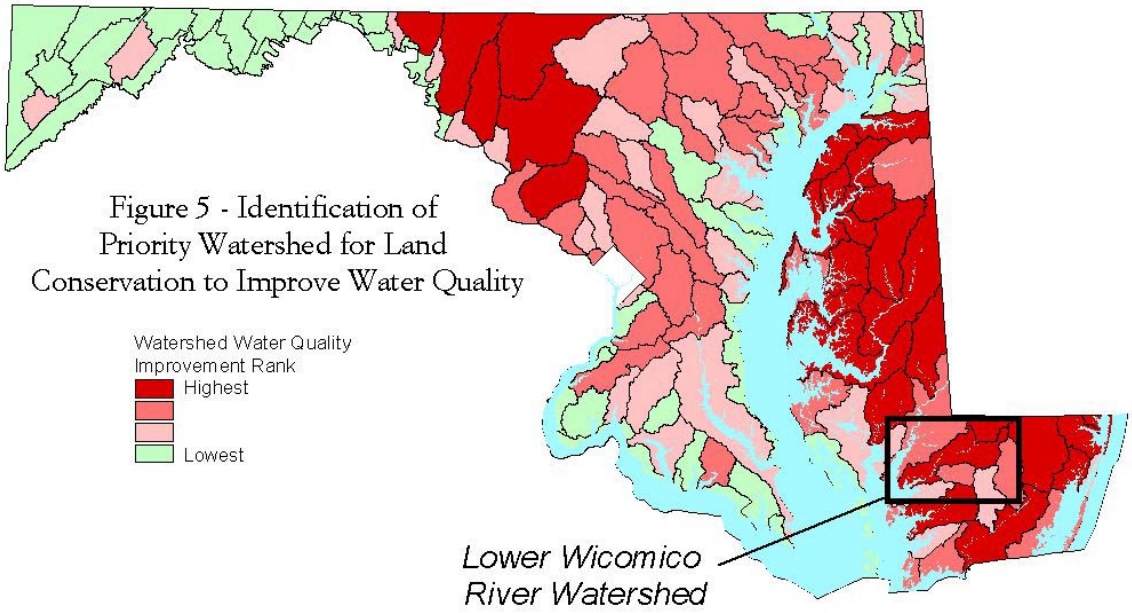
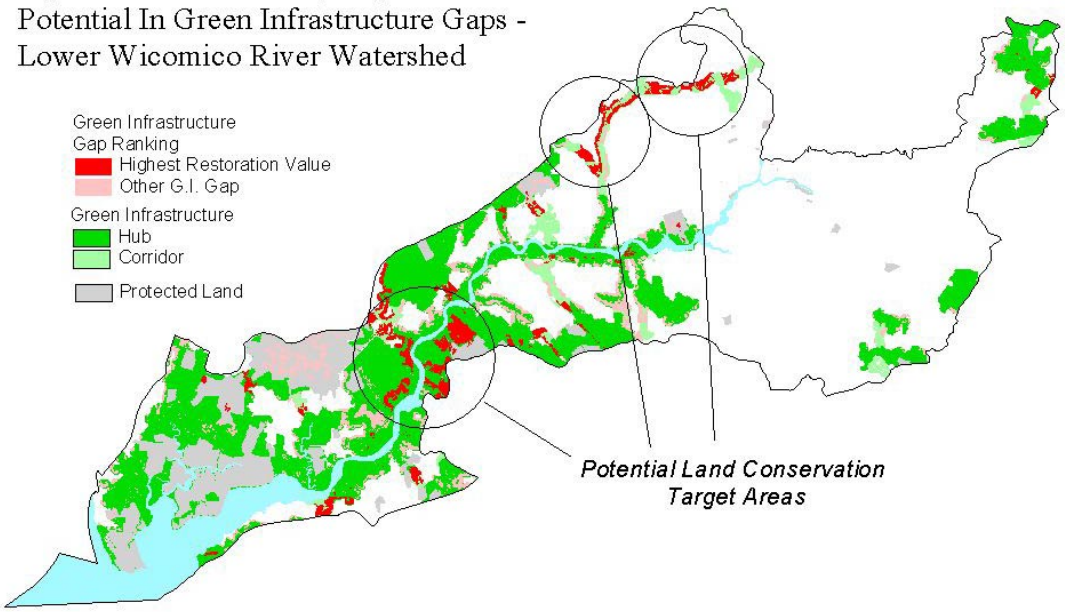


Figure 5 - Identification of Priority Watershed for Land Conservation to Improve Water Quality

For example, “gaps” in the Green Infrastructure can be identified and prioritized based on a restoration activity’s (e.g. wetland or buffer restoration) ability to contribute to water quality enhancement (Figure 6). The watershed prioritized as high for Bay Restoration Potential would serve as focus areas for integrated delivery of DNR’s (and ideally other State agency’s) stewardship and restoration programs.

Figure 6 - Water Quality Improvement Potential In Green Infrastructure Gaps - Lower Wicomico River Watershed



Appendix. Methods - Land Conservation for Water Quality Improvement Potential

A series of landscape parameters were analyzed at the watershed level to identify and prioritize areas for opportunity to improve water quality. A matrix (see Table 1) was created to show parameters and a ranking scheme. In total, six parameters were used to assess potential to improve water quality. Watershed scale data was developed using Maryland's 8-digit watersheds. There are 134 of these watersheds in the State with an average size of 70 square miles

As listed in Table 1, parameters were combined using the outlined ranking to yield a map of watersheds where water quality was typically poor and in need of improvement (see figure 1). Also, data was included to direct restoration efforts toward watersheds where multiple benefits would occur (e.g., Acres of Green Infrastructure gaps, Unforested Riparian Buffer). A brief description and breakdown of the parameters and their justification follows:

- Water Quality-NPS Nitrogen – A primary target of Chesapeake Bay restoration is the reduction of nitrogen loadings. To help identify sources of nitrogen loading to the Bay, the USGS produced the Spatially Referenced Regressions on Watershed Attributes Model or "SPARROW" (Preston and Brakebill 1999). The model identifies sources of nutrients by relating upstream nutrient sources to downstream nutrient loads measured at monitoring stations

- Percent Unforested Riparian Buffer – The presence of riparian buffer along streams and rivers has been found to provide multiple water quality, aquatic, and terrestrial habitat benefits (Jones et. al 2001, Lowrance et. al 1996). Consequently, reforesting of streamside buffers is an encouraged best management practice (BMP) in watershed restoration.

- Percent Non-Wetland Hydric Soils - Hydric soils exhibit physical and chemical properties that are commonly associated with being wet for long periods of time (i.e. those that support wetlands). Restoring the hydrology necessary to support a wetland is more likely achieved on hydric soils that are either currently, or once were, wet. A restored wetland can offer multiple benefits such as flood mitigation, groundwater recharge, and sediment and nutrient trapping (Tiner et al. 2000).

- Percent Impervious Surface – Maryland DNR research has found that impervious surface cover relates to degradation of aquatic resources in watersheds (Broward et. al 1999). Indeed, impervious cover at levels of 3% of a watershed begins to impact fish species such as Brook Trout. At higher levels (e.g., 25%) research suggests that stream channel stability and biology are seriously degraded (CWP 2003).

- CWAP - Priority Category 1 Watersheds – Maryland developed its Unified Watershed Assessment (MDNR 1998) to identify watersheds needing restoration

and protection, respectively referred to as Category 1 and Category 3 watersheds. A further category, Priority Category 1, was created to help better prioritize restoration activities. Watersheds in this category failed to meet half of the benchmarks necessary to indicate a healthy watershed (thereby indicating the need for restoration).

- Acres of Green Infrastructure Gaps - Maryland's Green Infrastructure Assessment identifies gaps in the statewide hub and corridor network and prioritizes these gaps for forest and wetland restoration (Weber 2003). Many of the parameters used to prioritize gaps for restoration are directly related to anticipated water quality benefits associated with the restoration activity. The total acres of green infrastructure gaps is an indicator of opportunity for restoration aimed at achieving multiple water quality and habitat benefits.

Through the use of these parameters, restoration efforts would be directed to those watersheds with non-point source pollution problems and where opportunities exist to implement BMPs aimed at improving water quality. Additionally, restoration through use of BMPs like wetland restoration and riparian reforestation would provide suitable habitat for both terrestrial and aquatic species.

References:

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Water Quality Improvement Matrix

Identification and prioritization of areas for implementing resource-based BMPs to improve water quality.

Water Quality-NPS Parameters

Watershed Parameters			**Ranking**			
Parameter ⇩ **Rank** ⇨	**Data Source**	**Scale**	**3**	**2**	**1**	**0**
Water Quality-NPS	Sparrow 1997	1:100K	Low (Poor)	Mid-Low	Mid-High	High (Better)
% Unforested Riparian Buffer	NLCD	1:100K	> 50%	50 - 34.9%	35 - 20%	< 20%
% Non-Wetland Hydric Soils	NLCD	1:100K	> 20%	10 - 19.9%	5 - 9.9%	< 5%
% Impervious Surface	TU 2000	1:100K	5 to 14.9%	0 - 4.9%	15 to 24.9%	> 25%
CWAP - Priority Category 1 Watersheds	UWA 1998	Mixed	Cat1			All Others
Acres of GI Gaps	GI	1:100K	> 4000	1500 - 3999	500 - 1499	0 - 499

Regional/Watershed Parameter

Notes on Matrix

Except for impervious surface and CWAP parameters, parameter classes used in the ranking approximate quartiles.

Used the %Buffer and %Ag to fill data gaps in Sparrow for areas outside the Bay Watershed
(The two variables correlate to Sparrow NPS-N yields)